UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

In the Matter of	)	
SACRAMENTO MUNICIPAL UTILITY DISTRICT	)	Docket No. 50-312 SP
(Rancho Seco Nuclear Generating Station)	)	

AFFIDAVIT OF CHARLES E. ROSSI

I, Charles E. Rossi being duly sworn, depose and state that:

1. I am an employee of the U. S. Nuclear Regulatory Commission (NRC). My present position is Section Leader, Section B, Instrumentation and Control Systems Branch, Division of Systems Integration within the Office of Nuclear Reactor Regulation. A copy of my professional qualifications is attached.

2. The purpose of my affidavit is to respond to Item No. 3 of the Atomic Safety and Licensing Appeal Board Memorandum and Order dated October 7, 1981 (ALAB-655). Item No. 3 requests the following information:

> "Status reports from SMUD and the staff on the installation of the safety-grade anticipatory reactor trip"

3. In a letter dated December 15, 1980, Sacramento Municipal Utility District (SMUD) committed to install the safety-grade anticipatory reactor trip during a plant outage scheduled to begin April 1, 1982. SMUD indicated that design efforts and equipment delivery schedules would not permit the modification prior to January 1, 1982, at the earliest. SMUD further stated in its letter of December 15, 1980, that installation can begin before it is necessary to actually shut the Rancho Seco Unit No. 1 down. Final terminations and full

implementation would be accomplished during the scheduled April 1, 1982 shutdown. Recently, SMUD has proposed to change the date for this shutdown to September 1982 as a result of the projected 1982 load demand and the estimated end of fuel cycle 5.

In letters dated September 8, 1981 and October 19, 1981, SMUD submitted final design information on the safety-grade anticipatory reactor trip. This information was reviewed by the Instrumentation and Control Systems Branch and a Safety Evaluation Report was prepared. The Safety Evaluation Report concluded that the proposed design modifications satisfy the Reactor Protection System safety requirements and criteria for redundancy, independence, and single failure. The design was found acceptable except for surveillance checks of the entire system and limiting conditions of operation which should be required in the plant Technical Specifications. In a letter dated November 2, 1981 (see attachment), the staff transmitted the Safety Evaluation Report to SMUD and requested that SMUD submit proposed Technical Specifications for the safety-grade anticipatory reactor trip.

The staff review of the environmental qualification of the system equipment is to be completed on a schedule consistent with completing installation of the safety grade anticipatory reactor trip in September 1982.

The above statements and opinions are true and correct to the best of my personal knowledge and belief.

Charles Ernest Rossi
CHARLES ERNEST ROSSI

Subscribed and sworn to before me
this day of December 1981.

_____, Notary Public
My Commission Expires: _____

STATEMENT OF PROFESSIONAL QUALIFICATIONS

CHARLES E. ROSSI

I have been with the U. S. Nuclear Regulatory Commission (NRC) since October 1980. Since August 1981 I have been a Section Leader in the Instrumentation and Control Systems Branch, Division of Systems Integration, Office of Nuclear Reactor Regulation. I am responsible for supervising the review of nuclear power plant instrumentation and control system designs for compliance with regulatory criteria. From October 1980 to August 1981 I was a Principal Reactor Engineer in the Instrumentation and Control Systems Branch. I performed the operating license review of the Callaway and Wolf Creek instrumentation and control system designs, the review of construction permit applicant responses to Three Mile Island Lessons Learned Items related to instrumentation and control systems, and the review of licensee responses to recommendations made by Babcock and Wilcox resulting from failure modes and effects analyses of the Integrated Control System.

I have a Ph.D degree (1969) and M.E degree (1967) in Applied Physics from Harvard University, a M.S degree (1962) in Physics from George Washington University and a B.A degree Magna cum Laude Highest Honors (1958) in Engineering and Applied Physics from Harvard University. I have a certificate from a six month reactor engineering course given by the Bettis Atomic Power Laboratory (1960). I was elected to Phi Beta Kappa in 1958 and Sigma Xi in 1962.

From June 1958 to July 1962 I served as a commissioned officer in the United States Navy. I was assigned to Naval Reactors, U. S. Atomic Energy Commission, where I reviewed and approved test and operating procedures for submarine nuclear power plant fluid systems and reactor instrumentation and control systems designs for the pressurized water reactor at Shippingport, PA.

From September 1966 to November 1977 I held professional and management positions in the Nuclear Energy Systems division of the Westinghouse Electric Corporation. As a manager I supervised the preparation of system functional design requirements for nuclear reactor plant systems which affect plant control, protection, and transient performance. In addition to reactor control and protection systems, these systems included emergency feedwater systems, emergency boration systems, and steam dump systems. For four years I was the lead engineer responsible for establishing functional requirements for reactor control and protection systems used in the Westinghouse 3 loop nuclear reactor plants and for performing accident analyses of these plants for safety analysis reports submitted to the Atomic Energy Commission.

From November 1977 to October 1980 I was Systems and Civilian Applications Program Manager in the Office of Inertial Fusion at the U. S. Department of Energy. In this position, I provided technical and administrative direction for studies of the commercial applications of inertial confinement fusion.

I am a member of the American Nuclear Society and past member of the IEEE Standards Committee on Safety Related Systems. I have authored or co-authored over ten technical articles for presentation at conferences or publication in journals.